Monitoring Migratory Behavior of American Shad (*Alosa sapidissima*) in the James River, VA: Feasibility of Dredging Impact Assessment

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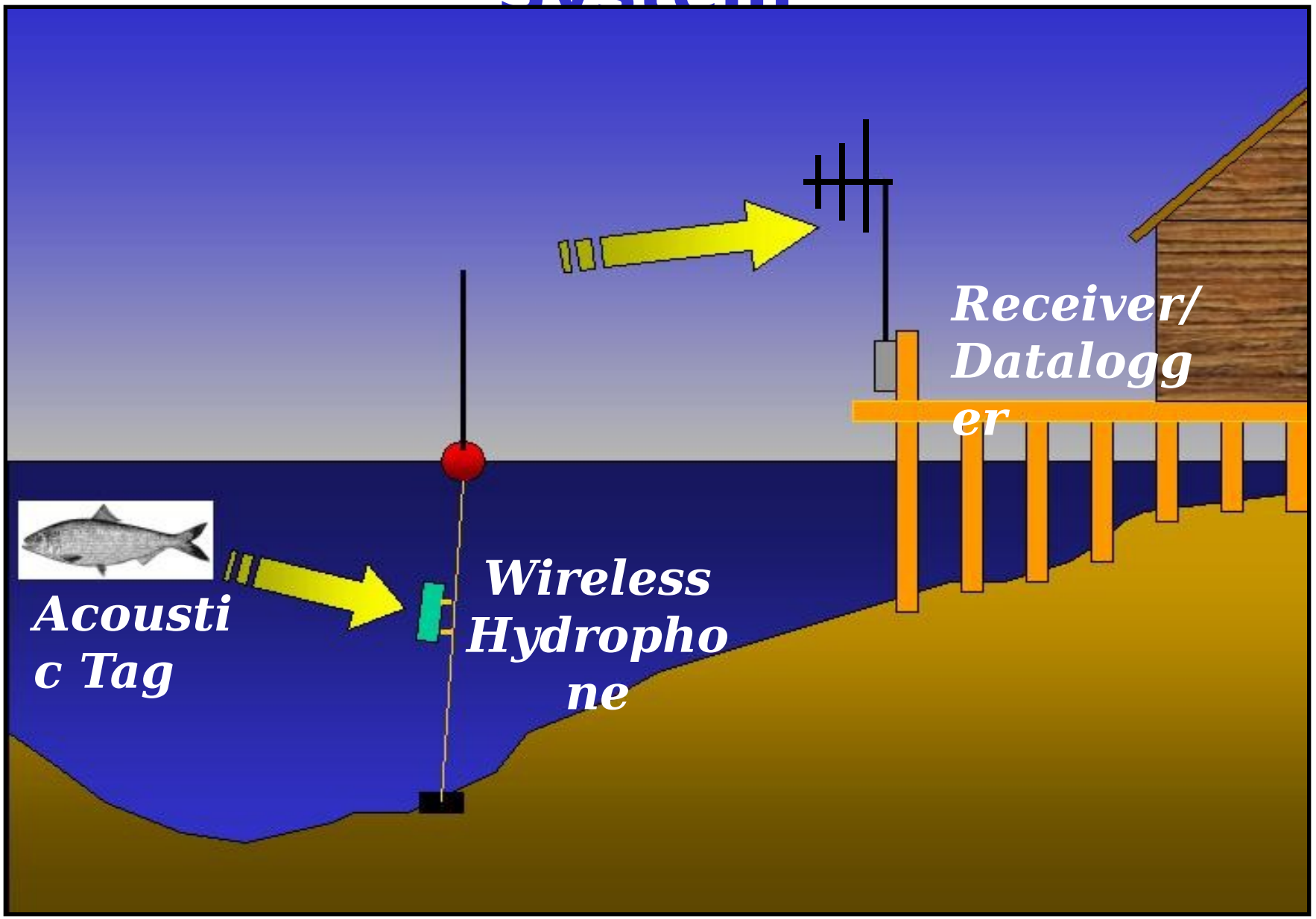
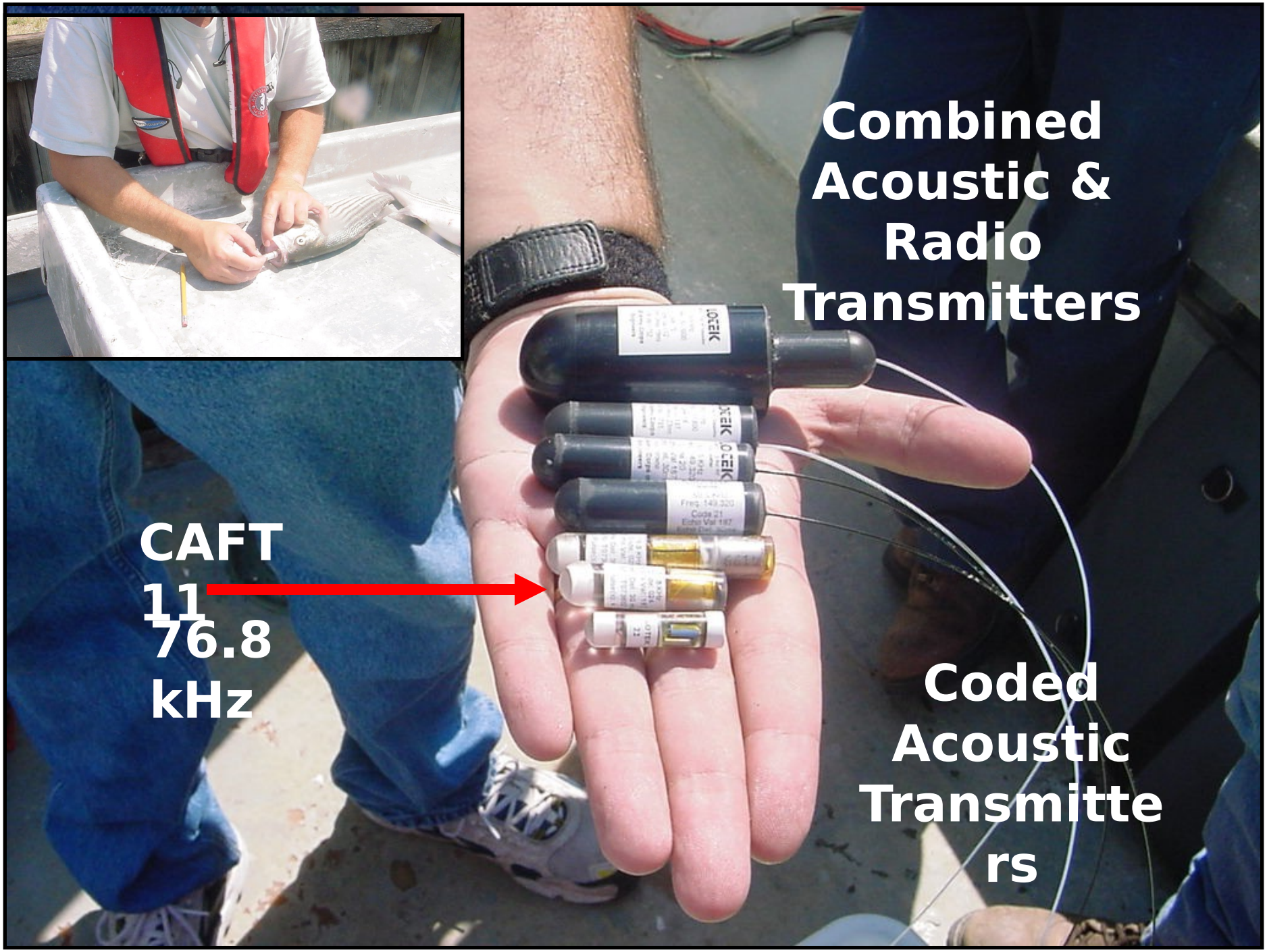
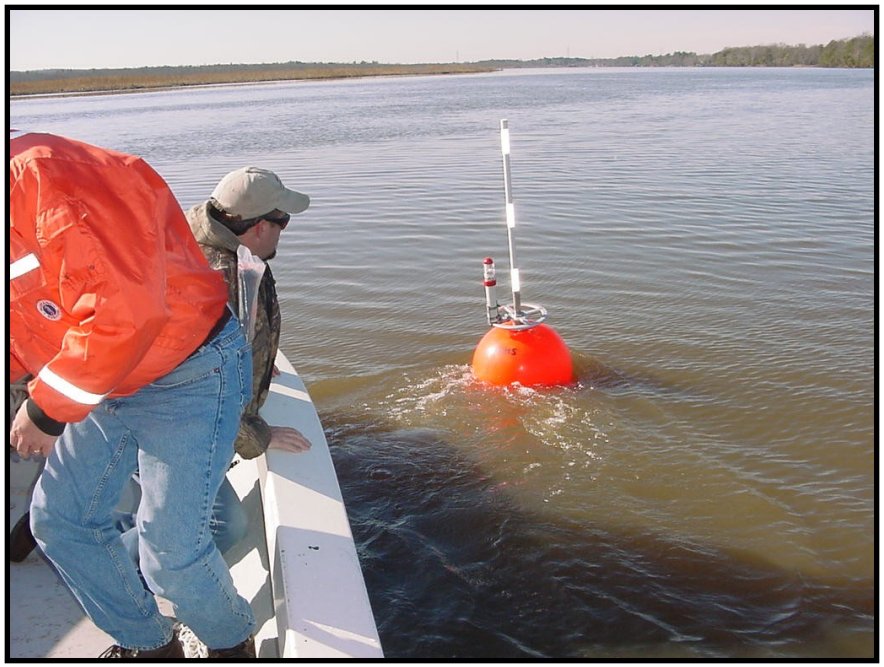
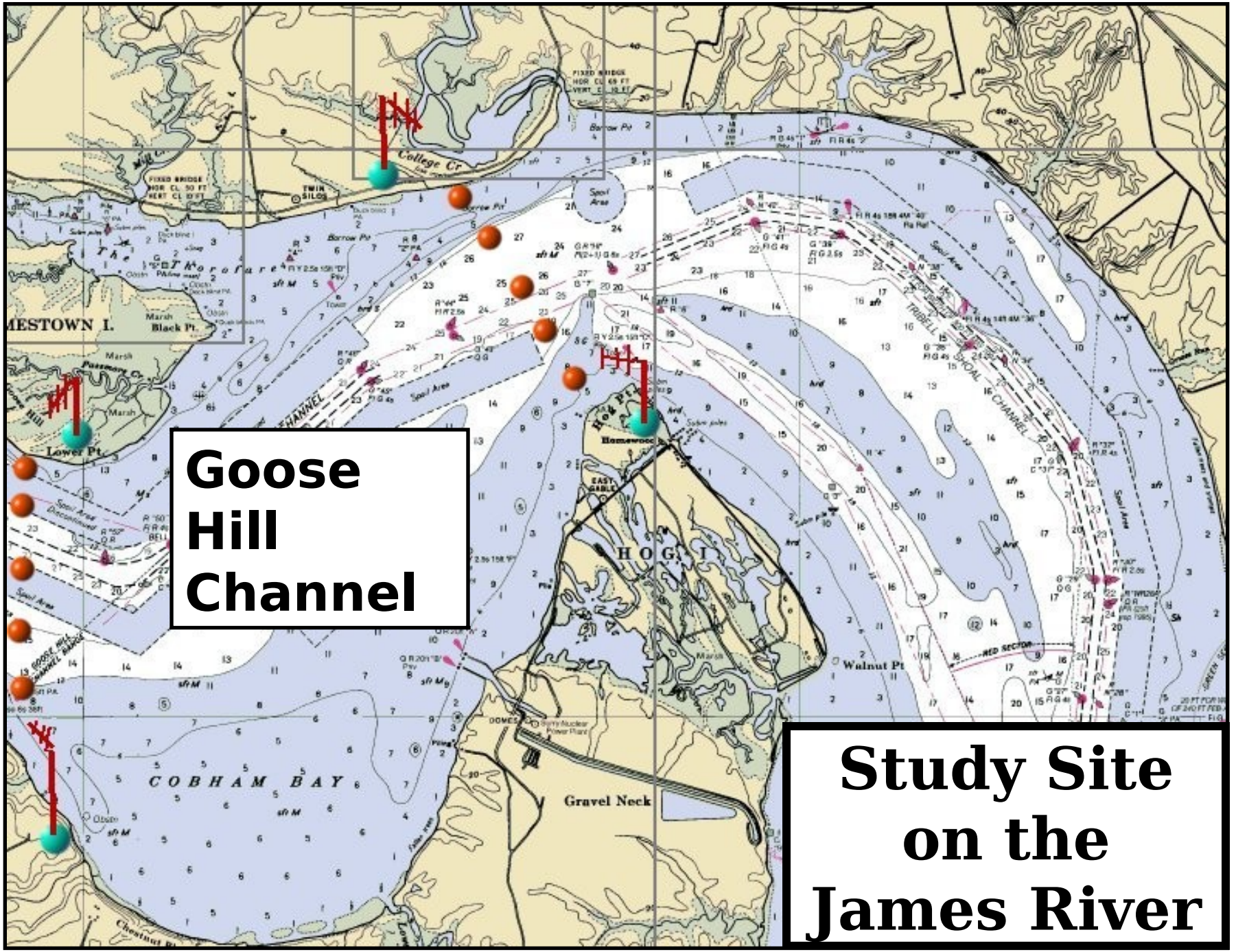
Lotek Biotelemetry System

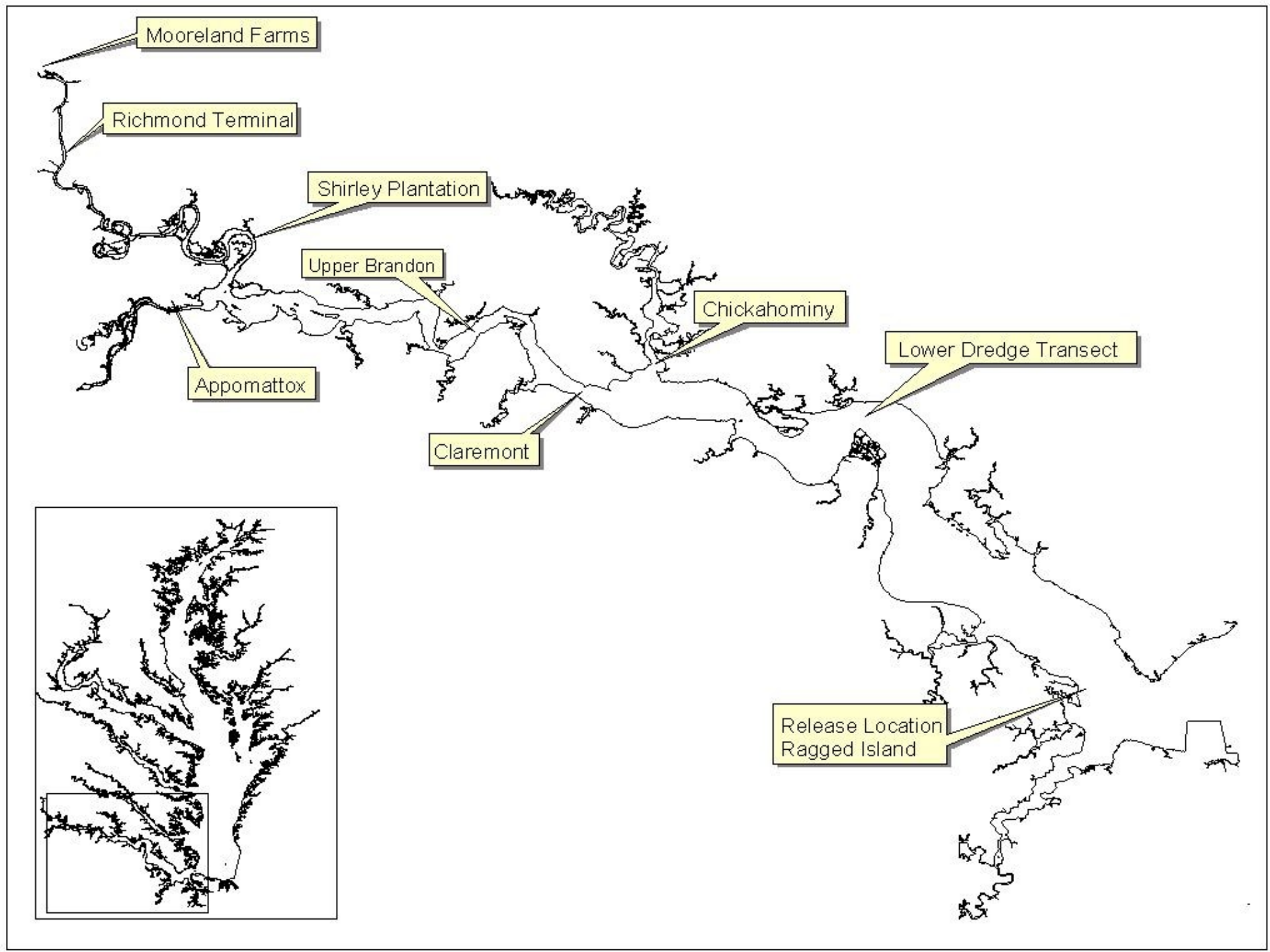



Combined Acoustic & Radio Transmitters
CAFT 11 76.8 kHz
Coded Acoustic Transmitters



Onshore Monitoring and Recording Station


Goose Hill Channel
Study Site on the James River
College Cr
Lower Pt
Hog Pt
HOG I.
COBHAM BAY
Gravel Neck
Walnut Pt
Spoil Area
Marsh
Black Pt.
TWIN SILOS
FIXED BRIDGE
Homewood
EAST GABLE
RED SECTOR
Surry Nuclear Power Plant


Mooreland Farms
Richmond Terminal
Shirley Plantation
Upper Brandon
Chickahominy
Lower Dredge Transect
Appomattox
Claremont
Release Location
Ragged Island

Primary Goal

- Establish if migrating shad are affected by dredging operations in the Middle James River.
  - **Study results should be used to re-evaluate TOY restrictions to better manage navigation requirements.**

2004 Study Objectives

- Evaluate effectiveness of catching and tracking American Shad in the James River.
  - **28 Shad were tagged and released**
  - **16 Shad were detected upstream**
- Refine methods for future tracking of shad when dredge is operating in the channel.
  - **Primarily commercial haul seine, but also staked gill nets**

2005 Study Objectives

- Evaluate upstream movements of American Shad when dredge is operating in the channel.
  - **106 anadromous fish tagged and released: 98 American Shad, 7 Hickory Shad, and 1 Striped Bass**
  - **Dredging will end next week.**

Team Meeting

- Upon receipt of final report from VIMS, I will schedule a meeting with our interagency team.
  - **Our last meeting was 8 Jun 2004.**

Thanks! Any Questions?